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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of:

Confirmation No. 9834

Shingo Yamaguchi

Group Art Unit No.: 2625

Serial No.: 09/747,650

Examiner: Thierry L. Pham

Filed: December 22, 2000

For: **PRINTING MECHANISM FOR WIRELESS DEVICES**

Mail Stop Appeal Brief – Patents

Commissioner for Patents

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AMENDED APPEAL BRIEF

Sir:

This Amended Appeal Brief is submitted in response to the Notice of Appeal filed on March 6, 2007 and further in response to the Notification of Non-Compliant Appeal Brief mailed on June 19, 2007. This Amended Appeal Brief is identical to the Appeal Brief filed on May 4, 2007, except for Section III, Status of Claims, which has been updated to specify that Claims 1-37 and 40-48 have been canceled.

I. REAL PARTY IN INTEREST

Ricoh Company Ltd. is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

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III. STATUS OF CLAIMS

Claims 38, 39 and 49-63 are pending in this application, were finally rejected in the Final Office Action mailed on October 18, 2006, and are the subject of this appeal. Claims 1-37 and 40-48 were canceled during the prosecution of this application.

IV. STATUS OF AMENDMENTS

No amendments were made after the Final Office Action mailed on October 18, 2006 and the claims included in the claims appendix filed with this appeal brief stand as the claims finally rejected in the Final Office Action mailed on October 18, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present application contains independent Claims 38 and 63 that are each directed to a printing interface apparatus. In Claim 38, the printing interface apparatus (interface box 334 of FIG. 3B) includes a wireless interface (344 of FIG. 3B), a web server (346 of FIG. 3B), a printer driver (350 of FIG. 3B) and a radio frequency directional shield (shield 406 of FIGS. 4A, 4C). The wireless interface (344 of FIG. 3B) allows communication between the wireless device (332 of FIG. 3B) and the interface box (334 of FIG. 3B). The web server (346 of FIG. 3B) is configured to dynamically generate web page data based on the received electronic document. Specification at Page 10, line 13 through Page 11, line 21. The web page data can be processed by a web browser for display on the wireless device (332 of FIG. 3B) and allows a user to select the name of an electronic document that is located on the wireless device (332 of FIG. 3B). Specification at Page 11, lines 3-4. The radio frequency directional shield (406 of FIGS. 4A, 4C and Specification, Page 12) includes an antenna opening (408 of FIG. 4B) configured to allow wireless communications between the wireless interface (344 of FIG. 3B) and wireless devices (332 of FIG. 3B) located only substantially in front of the antenna opening (408 of FIG. 4B). This limits the transmission of signals to an area directly in front of the printing interface apparatus, which reduces the likelihood of wireless transmissions between the printing interface apparatus and other wireless devices being intercepted by eavesdroppers or other unauthorized third parties (Specification, Page 12, lines 3-24).

In Claim 63, the printing interface apparatus (interface box 334 of FIG. 3B) includes a means (344 of FIG. 3B) for receiving electronic document information from a wireless device

over a wireless connection, a means (346 of FIG. 3B) for dynamically generating web page data that can be processed by a web browser for display on the wireless device, a means (350 of FIG. 3B) for processing the electronic document information and generating print ready data based on at least the non-print ready data in the electronic document information and a means (shield 406 of FIGS. 4A, 4C) for allowing wireless communications between a wireless interface in the printing interface apparatus and wireless devices located only substantially in front of the wireless interface. The means for receiving electronic document information from a wireless device (332 of FIG. 3B) over a wireless connection allows communication between the wireless device (332 of FIG. 3B) and the interface box (334 of FIG. 3B). The means (346 of FIG. 3B) for dynamically generating web page data that can be processed by a web browser for display on the wireless device (346 of FIG. 3B) is configured to dynamically generate web page data based on the received electronic document. Specification at Page 10, line 13 through Page 11, line 21 The web page data can be processed by a web browser for display on the wireless device (332 of FIG. 3B). The means (shield 406 of FIGS. 4A, 4C) for allowing wireless communications between a wireless interface in the printing interface apparatus and wireless devices located only substantially in front of the wireless interface includes an antenna opening (408 of FIG. 4B) configured to allow wireless communications between the means for receiving electronic document information from a wireless device over a wireless connection (344 of FIG. 3B) and wireless devices (332 of FIG. 3B) located only substantially in front of the antenna opening (408 of FIG. 4B). This limits the transmission of signals to an area directly in front of the printing interface apparatus, which reduces the likelihood of wireless transmissions between the printing interface apparatus and other wireless devices being intercepted by eavesdroppers or other unauthorized third parties (Specification, Page 12, lines 3-24).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 38, 39 and 49-63 stand finally-rejected under 35 U.S.C. § 103(a) as being unpatentable over *Slotznick*, U.S. Patent No. 5,983,200 in view of *Iida*, U.S. Patent No. 6,671,063 and further in view of *Gorenz Jr., et al.*, U.S. Patent No. 5,614,694 (hereinafter “*Gorenz*”).

VII. ARGUMENTS

A. Introduction

It is well founded that to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the references cited and relied upon must teach or suggest all the claim limitations. In addition, a sufficient factual basis to support the obviousness rejection must be proffered. *In re Freed*, 165 USPQ 570 (CCPA 1970); *In re Warner*, 154 USPQ 173 (CCPA 1967); *In re Lunsford*, 148 USPQ 721 (CCPA 1966).

With respect to the present application, it is respectfully submitted that Claims 38, 39 and 49-63 each include one or more limitations that are not taught or suggested by *Slotznick*, *Iida* and *Gorenz*, considered alone or in any combination. It is further submitted that a sufficient factual basis has not been proffered during the prosecution of the present application to support the rejection of Claims 38, 39 and 49-63 under 35 U.S.C. § 103(a) as being unpatentable over *Slotznick*, *Iida* and *Gorenz*.

B. Claims 38, 39 and 49-63 Are Patentable Over *Slotznick*, *Iida* and *Gorenz*

It is respectfully submitted that Claims 38, 39 and 49-63 are patentable over *Slotznick*, *Iida* and *Gorenz* because Claims 38, 39 and 49-63 each include one or more limitations that are not in any way taught or suggested by *Slotznick*, *Iida* and *Gorenz*.

CLAIM 39

Claim 38 is directed to a printing interface apparatus that recites:

“a wireless interface configured to receive electronic document information from a wireless device over a wireless connection, wherein the electronic document information is associated with one or more electronic documents and comprises non-print ready data;
a web server configured to dynamically generate web page data that can be processed by

a web browser for display on the wireless device, wherein the web page data is generated by the web server based on the received electronic document information;

a printer driver configured to process the electronic document information and generate print ready data based on at least the non-print ready data in the electronic document information;

wherein the printing interface apparatus is configured to transmit the print ready data to a printing device over a communications link; and

a radio frequency directional shield having an antenna opening configured to allow wireless communications between the wireless interface and wireless devices located only substantially in front of the antenna opening.”

The printing interface apparatus recited in Claim 38 includes four elements, namely, a wireless interface, a web server, a printer driver and a radio frequency directional shield. The radio frequency directional shield includes an antenna opening “configured to allow wireless communications between the wireless interface and wireless devices located only substantially in front of the antenna opening.” The inclusion of the radio frequency directional shield with an antenna opening as recited in Claim 38 is beneficial in situations where it is desirable to reduce the likelihood of wireless transmissions between the printing interface apparatus and other wireless devices being intercepted by eavesdroppers or other unauthorized third parties. The antenna opening allows wireless communications between the wireless interface and wireless devices located only substantially in front of the antenna opening. Wireless devices not located substantially in front of the antenna opening are not able to intercept the wireless communications. It is respectfully submitted that *Slotznick*, *Iida* and *Gorenz* do not in any way teach or suggest a printing interface apparatus having a radio frequency directional shield as recited in Claim 38 for at least the following reasons.

The Final Office Action mailed on October 18, 2006 asserts that *Slotznick* and *Iida* do not teach or suggest the radio frequency directional shield recited in Claim 38, “[h]owever, the combinations of *Slotznick* and *Iida* fail to teach and/or suggest a radio frequency directional shield having an antenna opening configured to allow wireless communications between the wireless interface and a wireless device located only substantially in front of the antenna opening.” Final Office Action, Page 4, lines 3-6. Applicant agrees with this assertion and therefore no further discussion is necessary with respect to the radio frequency directional shield and the *Slotznick* and *Iida* references. The Final Office Action instead relies upon *Gorenz* for teaching this limitation, “*Gorenz* teaches a well-known example of RF shield (RF shield 10,

Fig. 2) having an antenna opening (Fig. 2) configured to allow wireless communication between the wireless interface and wireless device located only substantially in front of the antenna opening.” Final Office Action, Page 4, lines 7-10.

Gorenz discloses a radio frequency interference (RFI) shield 10 used to shield circuit components from RFI. Typical components that require RFI shielding to function properly are RF modules. *Gorenz*, Col. 1, lines 11-12. The RFI shield 10 disclosed in *Gorenz* is designed to shield the underlying components from RFI in all directions, as evidenced by the five-sided metal can design. The RFI shield 10 is attached to a circuit board over components to be shielded. One of the issues with conventional RFI shields with a five-sided can design was that the shields had to be removed to service the underlying components. In some situations this could damage the underlying components and then the shields had to be re-attached to a printed circuit board on which the components were mounted. The RFI shield 10 of *Gorenz* addresses this problem by including a lid 18 that be opened to service the underlying components, without having to detach the entire RFI shield 10. The lid is defined by a hinge line 20 and partial shear lines 22, 24, 26. A tool is inserted into a series of slots 34 to pry the lid 18 upward and sever the frangible connections 32 along partial shear lines. *Gorenz*, Col. 2, line 47 through Col. 3, line 14. “Upon completion of the repair the lid can be reclosed and spot-soldered to retain it in the closed position.” *Gorenz*, Col. 2, lines 32-34.

Applicant has studied the *Gorenz* reference and cannot find any teaching or suggestion of a radio frequency directional shield “having an antenna opening configured to allow wireless communications between the wireless interface and wireless devices located only substantially in front of the antenna opening,” as recited in Claim 38. The RFI shield 10 of *Gorenz* is a five-sided metal can design that completely shields the underlying components. The only openings in the RFI shield 10 of *Gorenz* are the slots 34 and the round openings in each of the five sides of the RFI shield 10. *Gorenz* describes that “[t]he dimensions of the slots 34 are small enough to provide the required RFI attenuation.” *Gorenz*, Col. 3, lines 1-2. With respect to the round openings in each of the five sides, *Gorenz* does not specifically explain the purpose of the round openings, but it is respectfully submitted that one of ordinary skill in the art would readily recognize that the openings are provided for the purpose of allowing cooling of the underlying shielded components by the dissipation of heat through the holes. Lid 18 is provided explicitly to allow servicing of the underlying components and is closed and resoldered after the servicing

is complete and the normal operation mode is to be continued. It is therefore respectfully submitted that *Gorenz* does not teach or suggest that the RFI shield 10 includes any openings that could reasonably be considered an “antenna opening” as recited in Claim 38 because RFI shield 10 does not include an openings through which wireless communications could occur.

In view of the foregoing, it is respectfully submitted that *Gorenz* does not teach or suggest that the RFI shield 10 includes “an antenna opening configured to allow wireless communications between the wireless interface and wireless devices located only substantially in front of the antenna opening” as recited in Claim 38. Accordingly, it is respectfully submitted that Claim 38 recites an explicit limitation that is not taught or suggested by *Slotznick, Iida* and *Gorenz* and is therefore patentable over *Slotznick, Iida* and *Gorenz*.

CLAIMS 39 AND 49-62

Claims 39 and 49-62 all depend from Claim 38 and include all of the limitations of Claim 38. It is therefore respectfully submitted that Claims 39 and 49-62 are patentable over *Slotznick, Iida* and *Gorenz* for at least the reasons set forth herein with respect to Claim 38. Furthermore, it is respectfully submitted that Claims 39 and 49-62 recite additional limitations that independently render them patentable over *Slotznick, Iida* and *Gorenz*.

CLAIM 63

Claim 63 is directed to a printing interface apparatus that recites limitations similar to the limitations of Claim 38, except with claim elements recited in means-plus-function format. It is therefore respectfully submitted that Claim 63 is patentable over Claim 38 for at least the reasons set forth herein with respect to Claim 38.

VIII. CONCLUSION AND PRAYER FOR RELIEF

Based on the foregoing, it is respectfully submitted that the rejection of 38, 39 and 49-63 under 35 U.S.C. § 103(a) as unpatentable over *Slotznick* in view of *Iida* and further in view of *Gorenz* lacks the requisite factual basis. Appellants therefore respectfully request that the Honorable Board reverse the rejection of Claims 38, 39 and 49-63 under 35 U.S.C. § 103(a) over *Slotznick*, *Iida* and *Gorenz*.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP



Edward A. Becker

Reg. No. 37,777

Date: July 19, 2007

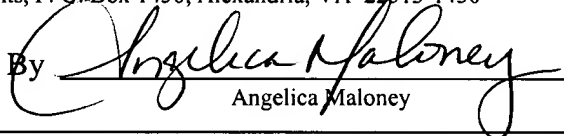
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On July 19, 2007

By



Angelica Maloney

CLAIMS APPENDIX

38. A printing interface apparatus comprising:
a wireless interface configured to receive electronic document information from a wireless device over a wireless connection, wherein the electronic document information is associated with one or more electronic documents and comprises non-print ready data;
a web server configured to dynamically generate web page data that can be processed by a web browser for display on the wireless device, wherein the web page data is generated by the web server based on the received electronic document information;
a printer driver configured to process the electronic document information and generate print ready data based on at least the non-print ready data in the electronic document information;
wherein the printing interface apparatus is configured to transmit the print ready data to a printing device over a communications link; and
a radio frequency directional shield having an antenna opening configured to allow wireless communications between the wireless interface and wireless devices located only substantially in front of the antenna opening.
39. The printing interface apparatus of Claim 38, wherein the wireless interface component includes a top side that is surrounded by a shield, the shield limiting reception of the receiving component to those devices that are located substantially in front of the wireless communication component.
49. The printing interface apparatus as recited in Claim 38, wherein:
the web server is further configured to include one or more print option selectors in the web page data that allow a user to request the printing of the contents of the web page data.
50. The printing interface apparatus as recited in Claim 38, wherein:

the print ready data is transmitted to the printing device via the wireless interface.

51. The printing interface apparatus as recited in Claim 38, further comprising:
a wired interface configured to transmit the print ready data to the printing device.
52. The printing interface apparatus as recited in Claim 38, wherein:
the web server is further configured to receive a browser request to generate the web page data; in response to the request, process the electronic document information and generate the web page data, and cause the web page data to be transmitted to a browser from which the request was received.
53. The printing interface apparatus as recited in Claim 52, wherein the web page data is transmitted over the wireless interface.
54. The printing interface apparatus as recited in Claim 38, wherein the web browser is further configured to generate CGI scripts which, when processed by the web browser, cause electronic document information to be sent to the web server.
55. The printing interface apparatus as recited in Claim 38, wherein:
the wireless interface component is configured to communicate with one or more wireless devices using a bluetooth communication protocol.
56. The printing interface apparatus as recited in Claim 38, wherein:
the wireless interface component is configured to communicate with one or more wireless devices using a 802.11 communication protocol.
57. The printing interface apparatus as recited in Claim 38, wherein:
the wireless interface component is configured to communicate with one or more wireless devices using a signal in about a 2.4 GHz range.
58. The printing interface apparatus as recited in Claim 38, further comprising:

a payment component that is configured to control the printing of documents by requiring a monetary payment before completion of the transmitting of the print ready data.

59. The printing interface apparatus as recited in Claim 58, wherein:
the payment component is configured as a magnetic card reader that is capable of reading non-physical payment information as payment for generating the hard copy of the one or more electronic documents.
60. The printing interface apparatus as recited in Claim 58, wherein:
the payment component is configured to accept physical currency as payment for generating the hard copy of the one or more electronic documents.
61. The printing interface apparatus as recited in Claim 58, wherein:
the payment component is configured to accept Cyber-Cash information over the wireless connection as payment for generating the hard copy of the one or more electronic documents.
62. The printing interface apparatus as recited in Claim 38,
wherein the wireless interface component includes means for downloading one or more printer drivers over the wireless connection, wherein the one or more printer drivers are compatible with the printing device.
63. A printing interface apparatus comprising:
means for receiving electronic document information from a wireless device over a wireless connection, wherein the electronic document information is associated with one or more electronic documents and comprises non-print ready data;
means for dynamically generating web page data that can be processed by a web browser for display on the wireless device, wherein the web page data is generated based on the received electronic document information;
means for processing the electronic document information and generate print ready data based on at least the non-print ready data in the electronic document information;

means for transmitting the print ready data to a printing device over a communications link; and

means for allowing wireless communications between a wireless interface in the printing interface apparatus and wireless devices located only substantially in front of the wireless interface.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None